

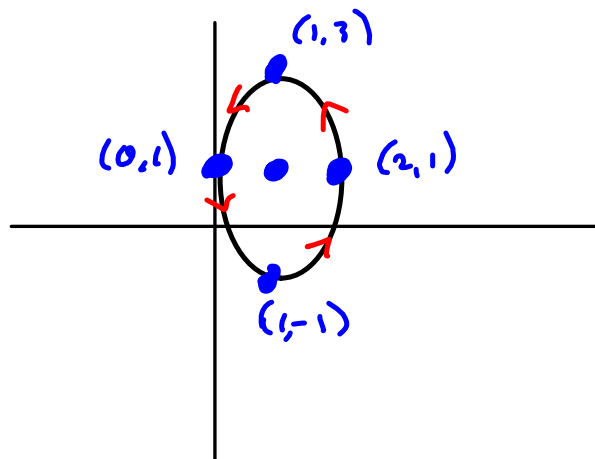
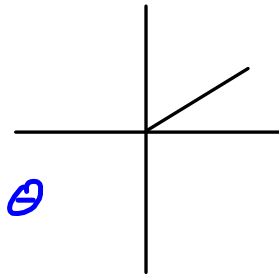
§6.6 # 27

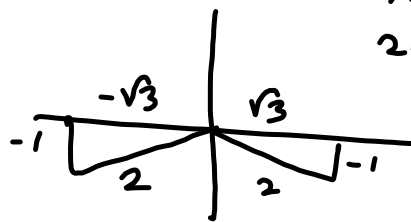
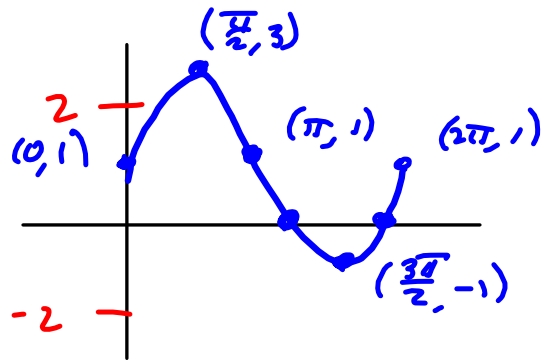
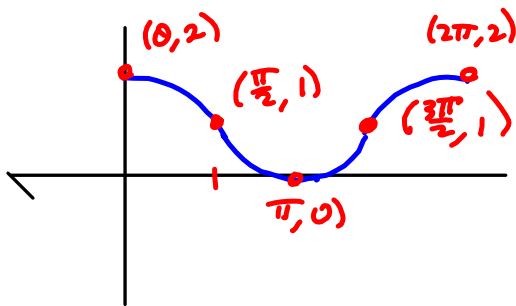
$$x = 1 + \cos \theta$$

$$y = 1 + 2 \sin \theta$$

$\theta$	x	y
0	2	1
$\frac{\pi}{2}$	1	3
$\pi$	0	1
$\frac{3\pi}{2}$	1	-1
$2\pi$	2	1

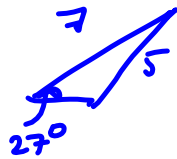
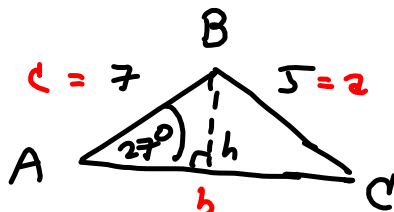
$x = 1 + \cos \theta$        $y = 1 + 2 \sin \theta$





$$\begin{aligned} 1 + 2\sin\theta &= 0 \\ 2\sin\theta &= -1 \\ \sin\theta &= -\frac{1}{2} \end{aligned}$$

$$\theta = \frac{7\pi}{6}, \frac{11\pi}{6}$$



2 solutions, since

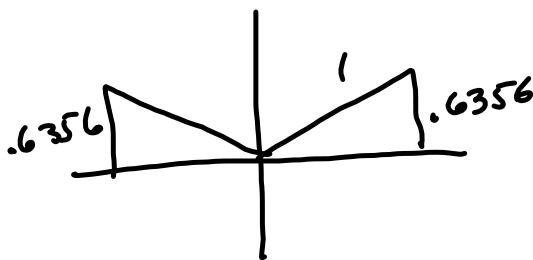
$$h = 7 \sin 27^\circ \approx 3.1779$$

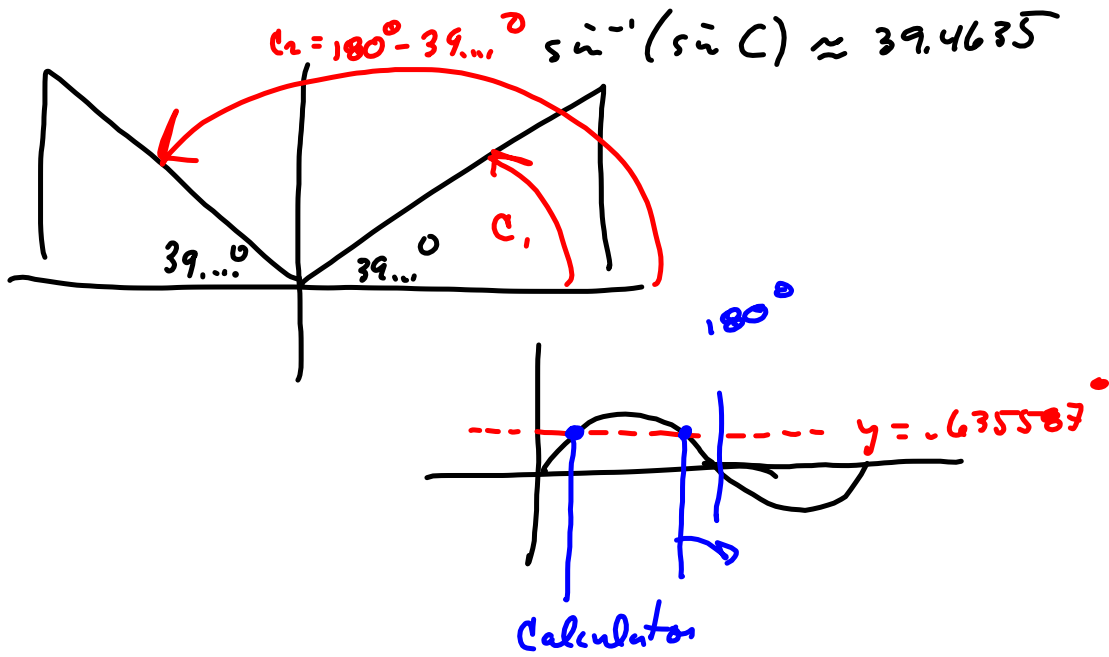
$3.1779 < 5 < 7$  shows  $a=c$  is baby bear's porridge.

$$\frac{\sin A}{a} = \frac{\sin C}{c}$$

$$\frac{\sin 27^\circ}{5} = \frac{\sin C}{7}$$

$$\sin C = \frac{7 \sin 27^\circ}{5} \approx 0.635587$$





$\cos \theta = .7$

